(c) introducing the mouse embryonic stem cell whose genome comprises the disrupted sulfotransferase gene into a blastocyst;

(d) implanting the blastocyst into a pseudopregnant mouse, wherein said pseudopregnant mouse gives birth to a chimeric mouse; and

(e) breeding the chimeric mouse to produce the transgenic mouse,

wherein the transgenic mouse, when homozygous for a disruption in the sulfotransferase gene, lacks expression of functional sulfotransferase and exhibits a behavioral abnormality.

41. (New) The method of claim 40, wherein the transgenic mouse, when homozygous for the disruption in a sulfotransferase gene, exhibits aggressive behavior.

42. (New) The method of claim 40, wherein the transgenic mouse, when homozygous for the disruption in a sulfotransferase gene, exhibits hyperactivity.

43. (New) The method of claim 40, wherein the transgenic mouse, when homozygous for the disruption in a sulfotransferase gene, exhibits decreased anxiety.

44. (New) A transgenic mouse whose genome comprises a disruption in an endogenous sulfotransferase gene, wherein the transgenic mouse lacks production of functional sulfotransferase and exhibits a behavioral abnormality.

45. (New) The transgenic mouse of claim 44, wherein the genome comprises a homozygous disruption of the sulfotransferase gene.

46. (New) The transgenic mouse of claim 44, wherein the mouse exhibits aggressive behavior.

47. (New) The transgenic mouse of claim 44, wherein the mouse exhibits hyperactivity.

48. (New) The transgenic mouse of claim 44, wherein the mouse exhibits decreased anxiety.

49. (New) A cell or tissue isolated from the transgenic mouse of claim 44.

50. (New) A transgenic mouse comprising a heterozygous disruption in a sulfotransferase gene, wherein the transgenic mouse, upon breeding, produces a transgenic mouse homozygous for a disruption in a sulfotransferase gene, wherein the transgenic mouse when homozygous for the disruption in the sulfotransferase gene lacks production of functional sulfotransferase and exhibits a behavioral abnormality.

51. (New) A cell or tissue isolated from the transgenic mouse of claim 50.

REMARKS

I. Amendments

Claims 11-16, 22-25 and 26-39 are canceled and new claims 40-51 are added. The newly added claims do not add new matter and are completely supported throughout the application as originally filed. More particularly, support for newly added claims 40-43 directed to a method of producing a transgenic mouse whose genome comprises a disruption in a sulfotransferase gene may be found, for example, at page 11, line 24, through page 13, line 24, at page 19, line 29, through page 21, line 24, and at page 60, lines 16-27, of the specification. Further, newly added claims 44-51 directed to a transgenic mouse whose genome comprises a disruption in a sulfotransferase gene, and cells and tissues isolated from the transgenic mouse, are supported, for example, at page 11, line 24, through page 13, line 24, at page 19, line 29, through page 21, line 24, at page 39, line 32, through page 40, line 8, and at page 59, line 24, through page 60, line 27, of the specification.

The amendments to the claims are made without prejudice to the pending or now canceled claims or to any subject matter pursued in a related application. Moreover, the amendments are made solely to expedite prosecution of the application and are not intended to limit the scope of the invention. Applicants reserve the right to prosecute any canceled subject matter at a later time or in a later filed divisional, continuation or continuation-in-part application.

Upon entry of the amendment, claims 40-51 are pending in the instant application.